

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
22 January 2004 (22.01.2004)

PCT

(10) International Publication Number  
**WO 2004/007054 A1**

(51) International Patent Classification<sup>7</sup>: **B01D 46/52,**  
25/24

[US/US]; 1116 136th Street West, Burnsville, MN 55337 (US).

(21) International Application Number:  
PCT/US2003/002799

(74) Agent: BRUESS, Steven, C.; Merchant & Gould P.C.,  
P.O. Box 2903, Minneapolis, MN 55402-0903 (US).

(22) International Filing Date: 31 January 2003 (31.01.2003)

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/395,009 10 July 2002 (10.07.2002) US

(71) Applicant (*for all designated States except US*): DON-ALDSON COMPANY, INC. [US/US]; 1400 West 94th Street, P.O. Box 1299, Minneapolis, MN 55440-1299 (US).

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

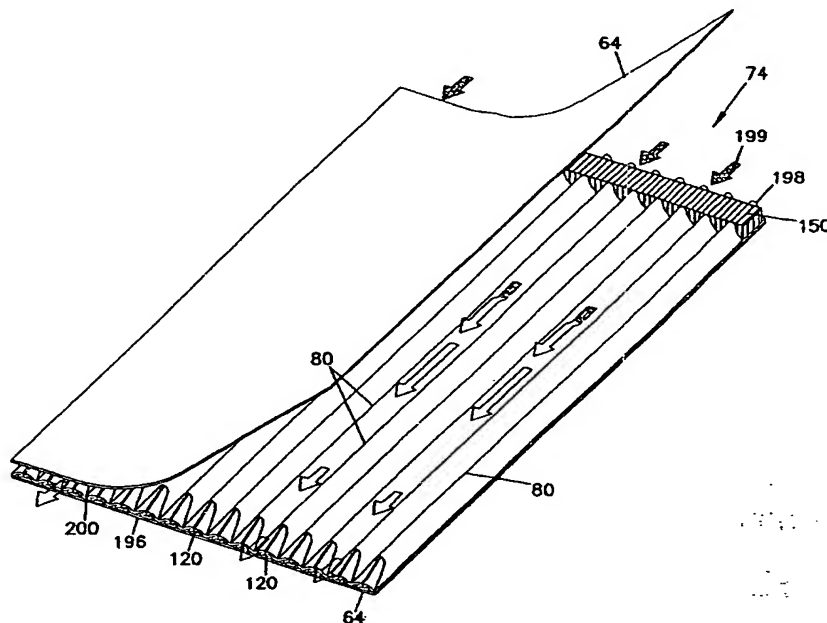
(75) Inventors/Applicants (*for US only*): GOLDEN, Patrick [US/US]; 199 West County Road C2, Roseville, MN 55113 (US). REICHTER, Gregory, L. [US/US]; 10617 Hopkins Road, Bloomington, MN 55420 (US). RISCH, Daniel, T.

Published:

— with international search report

[Continued on next page]

(54) Title: FLUTED FILTER MEDIUM AND PROCESS FOR ITS MANUFACTURE



(57) Abstract: A fluted filter medium (74) comprising a corrugated filter sheet, where each flute (120) has an end closure defined by a regular fold arrangement in the corresponding corrugation. Each regular fold arrangement has at least four folds. A process for manufacturing the fluted filter medium comprising deforming a portion of each corrugation to define at least one foldable tip, and folding the said tip in order to close the corrugation.

WO 2004/007054 A1